

III. Remarks

A. Rejection under 35 U.S.C. §103

1. Concepts underlying the invention.

The present invention relates to methods for improving environments, such as teaching/learning or working environments. A brief overview of some concepts underlying the invention is provided below in the context of a teaching “environment,” though this is for illustrative purposes only and it should be understood that the invention is not so limited. These concepts include “environment,” “climate,” “dimensions” and “characteristics.”

As explained in the present application, e.g., ¶¶ 128 et seq. of the published application, the framework of the invention is premised on the idea that teachers should focus on improving their capabilities in areas that have a direct impact on the performances of their classes. The assignee of the present application conducted extensive research into how highly effective teachers achieve results. This research included classroom observation, in depth interviews with teachers and the use of focus groups, as well as the collection of personal and school data. An analysis of the data revealed that three measurable factors influence classroom teacher effectiveness: (i) teaching “skills”; (ii) teacher “characteristics”; and (iii) classroom “climate.”

“Teaching skills” describe the craft of teaching. These skills can be learned, but sustaining them over the course of a career depends upon the deeper-seated nature of teacher “characteristics.”

“Teacher characteristics” are deep-seated patterns of behavior which outstanding teachers display more often, in more situations and to a greater degree of intensity than average teachers do.

The “classroom climate” represents the collective perceptions of students regarding the overall classroom learning environment. The climate provides information on students’ perceptions of how it feels to be in a particular teacher’s class in relation to every student’s

motivation to learn and perform to the best of his or her abilities. The more positive a climate, the more likely it is that students' progress and performance will match their raw potential.

The results of the research indicate that, taken together, teacher skills, teacher characteristics, and classroom climate will predict over 30% of the variance in student progress.

Various teaching characteristics define highly effective teachers, whether utilized separately or in combination. These characteristics may be grouped into five clusters: (a) Professionalism; (b) Thinking; (c) Planning and Setting Expectations; (d) Leading; and (e) Relating to Others. By way of example, "Professionalism" characteristics are related to a strongly held set of values held by highly effective teachers. By way of example, four teaching characteristics--(i) "challenge and support," (ii) "confidence," (iii) "creating trust," and (iv) "respect for others" may be included under the category of Professionalism. The characteristic identified as "challenge and support" indicates a commitment to doing everything possible for each student to enable all students to be successful. "Confidence" indicates the belief in one's ability to be effective and to take on challenges. "Creating trust" indicates the characteristic of being consistent and fair, while adhering to one's word. Finally, "respect for others" identifies an underlying belief that individuals matter and deserve respect.

Highly effective teachers make the most of their professional knowledge by deploying appropriate teaching "skills" consistently and effectively during the course of their lessons. A range of teaching "characteristics" underpins the teaching "skills." The measure of a classroom "climate" provides a key tool in analyzing the impact on students of a teacher's characteristics, skills and teaching methods in relation to various "dimensions" that collectively make up the classroom climate.

As noted above, the classroom "climate" describes what it feels like to be a student in a particular teacher's class at a particular time. It encompasses factors that influence students' motivation to learn and perform to the best of their ability. These factors can be strongly influenced by the teacher. The classroom climate represents the collective perception of a class.

Questionnaires provided to the students are designed to discern these perceptions so that the climate may be modeled according to “dimensions.”

The classroom climate matters because it correlates directly with student progress and has significant links to teaching characteristics. Extensive research has shown that a classroom climate can be modeled by one or more “dimensions” or factors that have a statistically significant correlation with student achievement in the classroom. For example, a classroom climate can be modeled by nine dimensions that impact significantly on students’ motivation--(a) clarity (the transparency and explicit relevance of what goes on in class); (b) order (discipline and structure in the classroom); (c) standards (expectations of achievement and encouragement to improve); (d) fairness justice and equality within the classroom); (e) participation (student involvement and influence in the running of the class); (f) support (encouragement to try new things and learn from mistakes); (g) safety (absence of threat or fear); (h) interest (stimulation and fascination in class); and (i) environment (the comfort and attractiveness of the physical environment).

The climate feedback provided to the classroom teacher includes feedback for one or more of the classroom climate “dimensions” described above and can illustrate things such as: (1) the gap between how the classroom teacher believes her students currently perceive the climate in her classroom and how the classroom teacher thinks they would like the climate to be like in the future; (2) the difference between the classroom teacher’s perceptions and her students’ perceptions of the current classroom climate; (3) the gap between the students’ perceptions of the current classroom climate and how they would like the climate to be like in the future; and (4) the difference between the students’ perception of the current classroom climate and a community benchmark of experience of classroom climates, such as on a national or regional level.

As noted above, each “dimension” is associated with a number of teacher “characteristics.” Targeted improvement in these “characteristics” improves the “dimension,” which in turn improves the overall classroom “climate” and thus student performance.

2. General overview of the invention.

The invention of the present application, in a general sense, utilizes the concepts described above as follows. Assuming for purposes of illustration only that the environment is a “teaching environment,” one or more persons participating in the environment (e.g. students and the teacher) provide evaluation data regarding the classroom climate of the environment (i.e., responses relating to what it feels like to be in the class). As discussed above, it is known that a “climate,” such as a classroom climate is associated with a number of “dimensions” or factors that have a statistically significant correlation with student achievement in the classroom. It is also known that individual ones of these dimensions can be associated with certain teaching characteristics that are known to have an effect on the “dimension” of the classroom climate. The inventive method provides model data to the teacher, for example, that models the classroom climate by its individual dimensions. The teacher can then identify a specific dimension that needs improvement (so as to boost the overall classroom climate). The teacher is then provided with an Action Plan for working on one or more of the teaching “characteristics” that are known to effect that selected dimension of the climate. As such, the Action Plan is highly target to improvements that will have a direct impact on an area of need.

In summary, rather than provide general guidance on improving teaching performance, the invention allows for the selection of specific dimension of the overall climate of the teaching environment and then provides pointed instruction (in the form of the Action Plan) relating to specific characteristics that are known to effect the individual dimension, which in turn is known to have an impact on student success or achievement in the classroom.

As discussed below, no such methodology is provided by the art of record, individually or in combination.

3. Claims 1-8, 10, 12-15, 17-22, 24, 36-40, 42-47, 70-72 and 75.

The Action rejects claims 1-8, 10, 12-15, 17-22, 24, 36-40, 42-47, 70-72 and 75 as being obvious from U.S. Patent No. 5,566,291 to Boulton in view of U.S. Patent Publication No. 2001/0031451 to Sander et al. Reconsideration and withdrawal of this rejection are respectfully requested in view of the foregoing amendments and the following arguments.

Claim 1 has been amended to better focus the claim with respect to the disclosed concepts of “environment,” “climate,” “dimensions,” “characteristics” and “action plan” discussed above.

Consistent with foregoing description, amended claim 1 emphasizes that the received evaluation data relates to a climate of the environment and represents impressions of the individual participating in the environment regarding what it feels like to participate in the environment.

Claim 1 also recites the step providing model data to an individual that is responsible at least in part for said environment, the model data representing one or more dimensions of said “climate.” This step has been amended to further clarify that “each dimension correspond[s] to a factor that has a correlation with achievement in said environment by individuals participating in said environment.” The claim recites further that the model data is developed at least in part from said evaluation data, each of said one or more dimensions being associated with at least one characteristic of said individual responsible for said environment. Claim 1 has been amended to further to clarify that “said at least one characteristic [is] known to effect a respective dimension of the environment.”

Claim 1 also recites, with emphasis, the steps of “receiving with a computer processor unit *a selection of at least one of said one or more dimensions* of said climate received from said individual responsible for said environment” and “providing said individual responsible for said environment *an action plan for improving at least one characteristic associated with said*

selected dimension.” In summary, the “action plan” must be directed to improving “at least one characteristic” that is associated with the “selected dimension” of the “climate” of the “environment” where that characteristic is known to effect that selected dimension. In the context of a teaching environment, the action plan would be directed to improving one or more particular teaching characteristics of a teacher, where the teaching characteristics are known to have an impact on a particular “dimension” of the climate of teaching environment. In turn, that “dimension” is a factor on the ability of students to succeed in the classroom. By directly targeting or focusing the Action Plan as such, the dimension of the climate improves with improvements in the underlying teaching characteristics and thus the overall climate of the environment improves. As discussed in more detail below, neither Boulton nor Sander, alone or in combination, provides a method where an overall climate can be modeled by its underlying dimension and where an Action Plan is developed specific to improving a selected dimension through improvement in particular personal characteristics associated with that selected dimension.

Boulton’s disclosure relates to a computer system for use in collecting feedback data as a user uses a computer product, such as computer-implemented course materials. (See, e.g., Col. 8, Lines 13-52). If the learner reaches a point in the course where she or he does not understand the concepts or ideas being described, the user can inform the author of the course about his or her trouble. (Col. 8, Lines 48-52). The reviewer can access the collected raw feedback data by way of a viewing interface, which allows the reviewer to sort and display the feedback data. (Col. 10, Lines 35-62).

Turning to claim 1, claim 1 recites the step of “receiving with a computer processor unit evaluation data for said environment received from at least one individual participating in said environment, said evaluation data relating to a climate of said environment and representing impressions of said individual regarding what it feels like to participate in said environment.” Boulton’s feedback is in the form of directed questions an individual may have on presented course materials, or a product being used, not on an overall “climate” of an environment nor

impressions on what it feels like to the individual to participate in the environment (e.g., learning environment, work environment, etc.).

Claim 1 also recites the step of “providing model data to an individual that is responsible at least in part for said environment” wherein the model data represent “one or more dimensions of said climate.” Claim 1 has been amended to further emphasize that “each dimension correspond[s] to a factor that has a correlation with achievement in said environment by individuals participating in said environment.” Claim 1 also recites that each of said one or more dimensions is associated with “at least one characteristic of said individual responsible for said environment” and has been amended to further emphasize that “said at least one characteristic [is] known to effect a respective dimension of the climate.” It is submitted that the feedback data provided to the reviewer of Boulton is not model data that represents “dimensions” of a “climate” where each “dimension” corresponds to a factor that has a correlation with achievement in the environment by individuals participating in the environment and further wherein each dimension is associated with at least one characteristic of the person responsible for the environment where each characteristic is known to effect the dimension of the environment.

The Examiner points to the reviewer interface of FIGS. 16-19 as corresponding to the model data providing step discussed above. It is submitted that FIGS. 16-19 do not display model data as discussed above. The interface shown in FIG. 16 has an area identified under the headers “location,” “context” and “time” that allows the user to filter the feedback data that will be shown. The filtered data is then categorized into attribute categories assigned to the feedback data, as shown in window 224, as follows: “situation” 228, which includes segments like user questions, suggestions, etc.; “response group” 232, which includes segments like “higher priority,” “waiting for response,” etc.; and “sharing” 230, which includes segments showing with whom the feedback data can be shared. (See Col. 29, Lines 29-47). None of these categories or segments (nor their underlying data (e.g., user questions, etc.)) within the categories is “model data” as claimed that represent “dimensions of a climate” where the dimension is understood to

have a correlation with achievement in the environment by individuals participating in said environment. Further, these categories are not dimensions where each dimension is associated with a characteristic of the individual responsible for the environment and known to effect the dimension.

To recap, the feedback data of Boulton that is available for review includes information like questions a student has on the course material, problems with a manufacturer's product or departmental problems an employee sees. (Col. 8, line 48 – Col. 9, line 13). Boulton's system gives the reviewer access to this raw feedback data, and allows the reviewer the ability to filter the data based on certain input criteria, but Boulton does not in any way model the overall climate of an environment by dimensions as claimed. Indeed, as discussed above, Boulton's system does not even present its users with questions that would elicit the type of feedback data that would allow for the modeling of the overall climate of an environment. Boulton, therefore, does not teach or suggest the claimed evaluation data receiving step or model data providing step of claim 1.

Claim 1 also recites the step of "receiving with a computer processor unit a selection of at least one of said one or more dimensions of said climate received from said individual responsible for said environment." As discussed above, Boulton's system does not appreciate or deal in anyway with "dimensions" of a climate. It follows, that Boulton's system does not receive from an individual responsible for an environment a selection of a dimension as claimed. It must be emphasized that a dimension as claimed is a "dimensions of a climate" where that dimension has a correlation with achievement in the environment by individuals participating in said environment and where each dimension is associated with a characteristic of an individual participating in the environment that is known to effect the dimension. Allowing a user to simply filter feedback data according to certain attributes cannot be considered selection of a "dimension" as discussed above and as claimed.

Finally, claim 1 recites the step of “providing said individual responsible for said environment an action plan for improving at least one characteristic associated with said selected dimension.” The Examiner concedes that Boulton does not teach providing an action plan to the person responsible for the environment but relies on Sander et al. for teaching this feature. It must be stressed that claim 1 recites that a specific type of action plan is provided to the user. That is, the action plan is a “plan for improving at least one characteristic associated with said selected dimension.” As Boulton does not teach the selection of a dimension of a climate, even the combination of Boulton and Sander cannot teach an action plan for improving at least one characteristic associated with a selected dimension.

Turning to Sander et al., the “action plan” of Sander provided to the user is determined by whether the user is classified as a “Beginner,” a “Theorist,” a “Thinker,” etc. See FIG. 7, 11. The Action Plan is general in nature, e.g., “take all educational modules to change categories,” and not directed in any way to improvement of a particular dimension of a climate or to a particular characteristic of a person responsible for an environment that would effect a selected dimension.

For at least these reasons, it is submitted that the combination of Boulton and Sander et al. does not teach each feature of independent claim 1. Claim 1, therefore, is allowable over the cited combination of references. Claims 2-8, 10, 12-15, 17-22, and 24 depend from claim 1 and are, therefore, allowable for at least the reasons set forth above in connection therewith.

Independent claim 36 has been amended in a manner similar to that discussed above in connection with claim 1. It is submitted that claim 36 is allowable for reasons analogous to those discussed above in connection with claim 1. Claims 37-40 and 42-47 depend from claim 36 and are, therefore, also allowable.

Independent claims 70 and 75 have been amended to recite certain features discussed above in connection with claims 1 and 36. It is submitted that claims 70 and 75 are allowable for reasons analogous to those discussed above in connection with claims 1 and 36.

Claims 71-72 depend from claim 70 and are, therefore, allowable for at least the reasons set forth above in connection with claim 70.

4. Claims 25-29, 31-35, 48-52, 73 and 74

The Action rejects claims 25-29, 31-35, 48-52, 73 and 74 as being obvious from Boulton and Sander in further view of U.S. Patent No. 5,743,742 to Morrel-Samuels. These claims depend from independent claims 1, 36 and 70 and are, therefore, allowable for at least the reasons set forth above in connection with those claims.

B. Official Notice

The Examiner takes Official Notice with respect to the features of claims 5-7, 13, 14, 19-21, 39, 40, 43, 44, 46, 47 and 75. More specifically, the Examiner argues that the Applicant failed to traverse the Official Notice taken in the rejection dated April 20, 2007 and therefore that this Official Notice is now considered "admitted prior art" under MPEP § 2144.03(c).

Applicants submit that it is inappropriate and manifestly unfair for the Office to deem the Official Notice as admitted prior art. Applicants traversed the rejection of the claims set forth in the April 20, 2007 Action by submitting a Rule 131 Declaration swearing behind one of the primary prior art references. Applicants had no reason to address the remaining prior art, including the Official Notice, as the Office's rejection was moot. Similarly, in the present Reply, Applicants argue that the independent claims distinguish over the prior art. There is no need for Applicants to address the dependent claims as they are allowable as a matter of law because of their dependency from the allowable independent claims.


IV. Conclusion

In view of the foregoing remarks, Applicants submit that this application is in condition for allowance at an early date, which action is earnestly solicited.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account **04-1679**.

Respectfully submitted,

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Joseph A. Powers, Reg. No.: 47,006
Attorney For Applicants

DUANE MORRIS LLP
30 South 17th Street
Philadelphia, Pennsylvania 19103-4196
(215) 979-1842 (Telephone)
(215) 979-1020 (Fax)